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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,569	06/30/2003	Sang Sic Yoon	40296-0013	7314
26633	7590	05/20/2004	EXAMINER	
HELLER EHRMAN WHITE & MCAULIFFE LLP			TON, MY TRANG	
1666 K STREET,NW			ART UNIT	
SUITE 300			PAPER NUMBER	
WASHINGTON, DC 20006			2816	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/608,569

Applicant(s)

YOON, SANG SIC

Examiner

My-Trang N. Ton

Art Unit

2816

An

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of claims 1-5 and 8 filed 4/28/04 is acknowledged. Claims 6-7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell (U.S Patent No. 5,594,361).

Campbell discloses in Fig. 7 a hysteresis circuit including:

a first time hysteresis (71) having a characteristic of time hysteresis when an input signal (77) transits from a first level (High level) to a second level (Low level); and

a second time hysteresis unit (73) connected in series to the first time hysteresis unit (71) having a characteristic of time hysteresis when the input signal (77) transits from the second level (Low level) to the first level (High level) as recited in claim 1.

Element 72 reads on an inverter for inverting an output signal (84) from the second time hysteresis unit (73) as recited in claim 2.

Claim 1 is also rejected under 35 U.S.C. 102(b) as being anticipated by Campbell (U.S Patent No. 6,060,926).

Campbell discloses in Fig. 4 a pulse conditioning circuit including:

a first time hysteresis (34A) having a characteristic of time hysteresis when an input signal (28) transits from a first level (High level) to a second level (Low level); and  
a second time hysteresis unit (34B) connected in series to the first time hysteresis unit (34A) having a characteristic of time hysteresis when the input signal (28) transits from the second level (Low level) to the first level (High level) as recited in claim 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (U.S Patent No. 6,060,926) as applied to claim 1 above taken with the prior art depicted by applicant, Fig. 1.

As stated above, every element of the claimed invention recited in above claim 1 can be seen in the circuit of Campbell. However, this reference does not show the "an inverter" (claim 2); the details of the "first time hysteresis unit" and "the second time hysteresis unit" (claims 3-4); "second delay time is more than two times longer than the first delay time" (claims 5 and 8).

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Regarding the limitation “an inverter”, it is old and notoriously well known in the art that the inverter is used as buffering or signal inverting purposes. Therefore, it would have been obvious at the time the invention was made for one skilled in the art to incorporate inverter to the output for buffering or level inverting purposes.

Regarding claims 3-4:

The prior art, Fig. 1 discloses the detail of the conventional time hysteresis unit including a latch unit (1), an inverter (I1) and a first delay unit (2).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ the conventional time hysteresis of the prior art, Fig. 1 in element 34A (or 34B) of Campbell since this involves nothing more than showing the details of what might typically comprise the first (or second) time hysteresis unit of Campbell.

Regarding the limitation “second delay time is more than two times longer than the first delay time”: Although Campbell does not expressly state the first and second delay time value, this difference is not of patentable merit because it is notoriously well known in the art that different values for the delay time can be selected in order to produce correspondingly different output values. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the second delay time is more than two times longer than the first delay time in realizing the circuit of the Campbell reference for the purpose of producing different output values when different values of the delay time is selected.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Trang N. Ton whose telephone number is 571-272-1754. The examiner can normally be reached on 7:00 a.m - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 13, 2004



MY-TRANG NUTON  
PRIMARY EXAMINER